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Remarks

Claims 1-20 are pending in the application.

Claim 6 is objected to because of an informality.

Claims 1-5 and 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Combs et al. (U.S. Patent No. 6,751,417B1, hereinafter "Combs").

Claims 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Combs.

Each of the various rejections and objections are overcome by amendments that are made to the specification, drawing, and/or claims, as well as, or in the alternative, by various arguments that are presented.

Any amendments to any claim for reasons other than as expressly recited herein as being for the purpose of distinguishing such claim from known prior art are not being made with an intent to change in any way the literal scope of such claims or the range of equivalents for such claims. They are being made simply to present language that is better in conformance with the form requirements of Title 35 of the United States Code or is simply clearer and easier to understand than the originally presented language. Any amendments to any claim expressly made in order to distinguish such claim from known prior art are being made only with an intent to change the literal scope of such claim in the most minimal way, i.e., to just avoid the prior art in a way that leaves the claim novel and not obvious in view of the cited prior art, and no equivalent of any subject matter remaining in the claim is intended to be surrendered.

Also, since a dependent claim inherently includes the recitations of the claim or chain of claims from which it depends, it is submitted that the scope and content of any dependent claims that have been herein rewritten in independent form is exactly the same as the scope and content of those claims prior to having been rewritten in independent form. That is, although by convention such rewritten claims are labeled herein as having been "amended," it is submitted that only the format, and not the content, of these claims has been changed. This is true whether a dependent claim has been rewritten to expressly include the limitations of those claims on which it formerly depended or whether an independent claim has been rewriting to include the limitations of claims that previously

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depended from it. Thus, by such rewriting no equivalent of any subject matter of the original dependent claim is intended to be surrendered. If the Examiner is of a different view, he is respectfully requested to so indicate.

Objection to Claim 6

Claim 6 is objected to because "at least on receiver" is used where --at least one receiver--is intended. Claim 6 has been amended to recite --at least one receiver--. Therefore, the Examiner's rejection should be withdrawn.

Rejection Under 35 U.S.C. 102

Claims 1-5 and 16-20

Claims 1-5 and 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Combs. The rejection is traversed.

Independent claim 16 has been amended to clarify that the services from the customer premises comprise optical signals. Support for this can be found, for example, on page 4, lines 28-29 of the original specification. No new matter has been added as a result of this amendment.

Combs does not teach each and every element recited in claims 1, 16 or 18 because the cited portions of Combs (e.g., Figs. 1 and 3-4) are not relevant to communications within an access network, which is the environment that claims 1, 16 and 18 pertain to.

As typically understood by one skilled in the art of telecommunications, an access network is the portion of a network that connects individual subscribers to the local exchanges or access points of the network.

Applicants submit that the components in Combs' Figs. 3-4 cited in the Office Action are not part of an access network. Instead, Figs. 3-4 show examples of a muxnode 104, which is an intermediate node in a communication system of Fig. 1 between a head-end and end users. Figs. 3-4 of Combs are not part of an access network because the mux-node 104 connects only to mini-fiber nodes mFNs 108 (via optical fiber trunks 120-122), but not directly to any end-user 112.

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The portion of Combs' communication system that may properly be regarded as an access network is the connection between the end-user 112 and the tap 110 or perhaps the mini-fiber node 108.

Regarding the connections to end-users, Combs teaches that "each of the mFNs may be connected to one or more end-users via passive wired connections such as coaxial lines" (col.1, lines 59-62); and "[u]pstream RF signal may be received by the mFNs via the passive wired connections from the end-users" such as coaxial lines (see, for example, col.2, lines 21-22; and col.3, lines 41-43). Combs further teaches that multiple types of upstream signals from end-users, which may include analog signals and radio frequency digital signals, may be transmitted in different RF bands (e.g., col.4, lines 10-16.) Thus, Combs teaches only wired connections for analog and RF digital signals between the end-users and the mFNs, and there is no teaching regarding optical signals.

As such, Combs does not teach that the connections between the end-users and MFNs comprise any passive optical downstream link or active optical upstream link, as arranged in independent claims 1 or 18. Furthermore, Combs does not teach or suggest that the upstream signals from the end-user comprise optical signals, as provided in independent claim 16.

Therefore, Combs fails to disclose each and every element of Applicants' claimed invention, and independent claims 1, 16 and 18 are allowable over Combs under 35 U.S.C. 102(b).

Since all of the dependent claims that depend from the independent claims include all the limitations of the respective independent claim from which they ultimately depend, each such dependent claim is also allowable over Combs under 35 U.S.C. 102(b).

Accordingly, claims 1-5 and 16-20 are patentable under 35 U.S.C. 102(b) over Combs. Therefore, the rejection should be withdrawn.

Rejection Under 35 U.S.C. 103(a)

<u>Claims 6-15</u>

Claims 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Combs. The rejection is traversed.

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For at least the reasons discussed above in response to the Examiner's 35 U.S.C. 102(e) rejection of claims 1, 16 and 18, Combs fails to teach or suggest Applicants' invention as a whole. Specifically, for the access network portion of Combs' communication system, Combs teaches only wired connections between the end-users and the mFNs for analog signals or RF digital signals.

Combs fails to teach or suggest communication of services to and from customer premises in an access network, including "transmitting services to said customer premises using a passive optical downstream link; and receiving services from said customer premises using an active optical upstream link", as recited in independent claim 1. Thus, independent claim 1 is not obvious over Combs, and is patentable under 35 U.S.C. 103(a).

Independent claim 8 has been amended to clarify that the services from the customer premises comprise optical signals. Support for this can be found, for example, on page 4, lines 28-29 of the original specification. No new matter has been added as a result of this amendment

For the same reasons set forth above, Combs fails to teach or suggest the upstream signals from end-users comprising any optical signals. Therefore independent claim 8 is also allowable over Combs under 35 U.S.C. 103(a).

Since all of the dependent claims that depend from the independent claims include all the limitations of the respective independent claim from which they ultimately depend, each such dependent claim is also allowable over Combs under 35 U.S.C. 103.

Accordingly, dependent claims 6-7 and 9-15, which depend directly or indirectly from claims 1 or 8, are patentable under 35 U.S.C. 103(a) over Combs. Therefore, the rejection should be withdrawn.

Secondary References

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to Applicant's disclosure than the primary references cited in the Office Action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this Office Action.

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Conclusion

It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

If, however, the Examiner still believes that there are unresolved issues, the Examiner is invited to call Eamon Wall at (732) 530-9404 so that arrangements may be made to discuss and resolve any such issues.

Respectfully submitted,

Dated: $\frac{1}{2}/\frac{7}{67}$

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